WHAT IS CLAIMED IS:

1. A method of deriving data representative of a condition of a pipeline comprising:

passing a pipeline pig along a pipeline;

generating data representative of an acoustical characteristic of the pipeline pig made as the pipeline pig moves through the pipeline pig; and

analyzing the data to determine a condition of the pipeline.

2. The method of claim 1, wherein the acoustical characteristic is a vibration frequency.

3. The method of claim 1, wherein the acoustical characteristic is a vibration signal amplitude.

4. The method of claim 1, further comprising, selecting a pig guide diameter, a seal diameter and a seal thickness to generate vibration frequency data characteristic of an internal condition of the pipeline.

5. The method of claim 1, further comprising, controlling a speed of the pipeline pig to within a suitable range to generate vibration frequency data characteristic of the internal condition of the pipeline.

6. The method of claim 1, further comprising, collecting data for use in determining a speed of travel of the pipeline pig along the pipeline.

7. The method of claim 1, further comprising, collecting data for use in determining a position of the pipeline pig along the pipeline.

8. The method of claim 1, wherein analyzing the data to determine a condition of the pipeline comprises filtering the data.

9. The method of claim 1, wherein analyzing the data to determine a condition of the pipeline comprises correlating data collected from a first sensor upon encountering a physical condition in the pipeline and data collected from a second sensor upon encountering the same physical condition in the pipeline.

10. The method of claim 1, wherein analyzing the data to determine a condition of the pipeline comprises correlating two or more of frequency data, data representative of the pig position along the pipeline and a speed of travel of the pig along the pipeline.

11. The method of claim 1, wherein analyzing comprises processing the data to remove frequency responses resulting from the pig passing known structures in the pipeline.

12. The method of claim 11, wherein the know structures include joints and bends.

13. The method of claim 1, wherein analyzing comprises identifying one or more known patterns.

14. The method of claim 11, wherein identifying one or more known patterns comprises comparing the data to reference data to identify a signature represented by the reference data, wherein the signature represents a known condition.

15. A method of deriving data representative of a condition of a pipeline comprising:

passing a pipeline pig along a pipeline;

sensing a frequency response generated by the pipeline pig as it moves along the pipeline;

generating data representative of the frequency response; and

analyzing the data to give data representative of the condition of the pipeline.

16. The method of claim 15, wherein analyzing the data comprises analyzing a frequency range between about 75 Hz and 300 Hz.

17. A computer readable medium containing a program which, when executed, performs an operation, comprising:

receiving a sensed frequency response generated as the pig moves along a pipeline by interaction between a physical structure of the pipeline pig and at least one of a structure of the pipeline and debris formed on the pipeline; and

generating data representative of the frequency response.

18. The computer readable medium of claim 17, wherein the operation further comprises analyzing the data to determine give data representative of the condition of the pipeline.

19. The computer readable medium of claim 17, wherein the operation further comprises storing the data for subsequent retrieval after removal of the pipeline pig from the pipeline.

20. An onboard pipeline pig system, comprising:

one or more vibration sensors configured to collect a sensed frequency response generated as a pig moves along a pipeline by interaction between a physical structure of the pipeline pig and at least one of a structure of the pipeline and debris formed on the pipeline; and

a processor connected to receive information representative of the sensed frequency response.

21. The system of claim 20, wherein the processor is configured to process the information representative of the sensed frequency response and determine a physical condition of the pipeline.

22. The system of claim 20, wherein the processor is configured to process the information representative of the sensed frequency response and determine a presence of corrosion in the pipeline.

23. The system of claim 20, wherein the processor is configured to process the information representative of the sensed frequency response in a range between about 75 Hz and 300 HZ.

24. A pipeline pig, comprising:

a casing;

an onboard pipeline pig system disposed at least partially within the casing and comprising:

one or more vibration sensors configured to collect a sensed frequency response generated as the pig moves along a pipeline by interaction between a physical structure of the pipeline pig and at least one of a structure of the pipeline and debris formed on the pipeline; and

a processor connected to receive information representative of the sensed frequency response.

25. The pipeline pig of claim 24, wherein the processor is configured to process the information representative of the sensed frequency response and determine a physical condition of the pipeline.

26. The pipeline pig of claim 24, wherein the processor is configured to process the information representative of the sensed frequency response and determine a presence of corrosion in the pipeline.

27. The pipeline pig of claim 24, wherein the processor is configured to process the information representative of the sensed frequency response in a range between about 75 Hz and 300 HZ.

28. The pipeline pig of claim 24, wherein the one or more vibration sensors comprise a first vibration sensor disposed at a first location on the pig and a second vibration sensor disposed at a second location on the pig.

29. The pipeline pig of claim 24, wherein the processor is configured to correlate data collected by the first and second sensors for a same event.

30. The pipeline pig of claim 24, wherein the processor is configured to correlate data collected by the first vibration sensor upon encountering a physical condition in the pipeline and data collected from the second vibration sensor upon encountering the same physical condition in the pipeline at a later time.